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QUIZZES

Practice Test-1 Life Processes in
Animals and Plants (Transport in Pl...



10 Questions



7 min

Topics

Uptake and transport of minerals and water,
Ascent of sap, Water Potential, Translocation
of organic solutes, Transpiration and factors
affecting it

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Start Quiz



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1/10



7 min



Hint

Q: Which essential nutrient in plant is required in greatest amount?

A

Nitrogen

B

Phosphorous

C

Potassium

D

Calcium

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1

2

3

4

5

6

7



2/10



7 min



Hint

Q : Water moves across a selectively permeable membrane:

**From**Region of higher water potential
potential**To**Region of lower water
potential**From**Lower water concentration
concentration**To**Higher water
concentration**From**Higher solute concentration
concentration**To**Lower solute
concentration**From**Region of higher osmotic potential
osmotic potential**To**Regional of lower
osmotic potential

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3/10



7 min



Hint

Q : Deplasmolysis occurs in a cell when it is placed in

A

Hypotonic solution

B

Hypertonic solution

C

Isotonic solution

D

Buffer solution

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1

2

3

4

5

6

7



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4/10



7 min



Hint

Q : Root pressure develops due to

A

Passive absorption of ions

B

Active absorption of ions

C

Active absorption of glucose

D

Passive absorption of sucrose

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1

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5/10



7 min



Hint

Q : Transport of food material in higher plants takes place through

A

Companion cells

B

Transfusion tissues

C

Tracheids

D

Sieve elements

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1

2

3

4

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6/10



7 min



Hint

Q : Apoplast pathway can take water and minerals upto:



Xylem



Endodermis



Cortex



Pericycle

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1

2

3

4

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7



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7/10



7 min



Hint

Q : The tendency of dissimilar particles or surfaces to cling to one another is called:

A

Tension

B

Cohesion

C

Climbing

D

Adhesion

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SAEED MDCAT TEAM



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1

2

3

4

5

6

7



8/10



7 min



Hint

Q : It is found among water molecules by which water can move up the xylem like an unbroken column:

A

Covalent bonds

B

Ionic bonds

C

H-bonds

D

Ester bonds

SAEED MDCAT**SAEED MDCAT TEAM****SAEEDMDCAT**

4

5

6

7

8

9

10



9/10



7 min



Hint

Q : It is the attraction among water molecules which holds them together within the xylem tube:



Tension



Adhesion



Cohesion



Imbibition

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SAEED MDCAT TEAM



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4

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8

9

10

Q Food in plants is transported in the form of

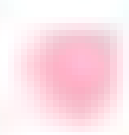
- ☒ Monosaccharide
- ☐ Polysaccharide
- ☐ Disaccharide
- ☐ Oligosaccharide

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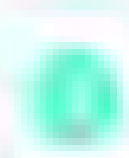


Question



MCQs

Q. Which essential nutrient in plants is required in greatest amount?



Nitrogen



Phosphorous



Potassium



Calcium

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As protein is most abundant organic compound in the cell. To make protein, nitrogen is most essential element. So nitrogen is most abundant than other elements in options.

Q Water moves across a selectively permeable membrane

From Region of higher water potential
To Region of lower water potential

From Lower water concentration
To Higher water concentration

From Higher solute concentration
To Lower solute concentration

From Region of higher osmotic potential
To Region of lower osmotic potential

Explanation

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From Region of higher water potential
To Region of lower water potential

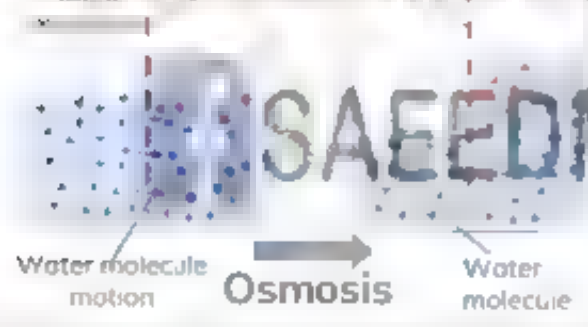
From Lower water concentration
To Higher water concentration

From Higher solute concentration
To Lower solute concentration

From Region of higher osmotic potential
To Region of lower osmotic potential

Explanation

SAEEDMDCAT TEAM



SAEEDMDCAT

Q Deplasmolysis occurs in a cell when it is placed in



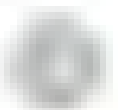
Hypotonic solution



Hypertonic solution



Isotonic solution



Buffer solution

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Explanation

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SAEED MDCAT



SAEED MDCAT



SAEED MDCAT



SAEED MDCAT

Q. Root pressure develops due to

- ☐ A. Passive absorption of ions
- ☒ B. Active absorption of ions
- ☐ C. Active absorption of glucose
- ☐ D. Passive absorption of sucrose

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Explanation
SAEED MDCAT TEAM

Root pressure is created by the active secretion of salts and into the xylem sap. This lowers a water potential of xylem sap. Water enters the xylem cells by osmosis, thus increasing the level of sap in the xylem cells. It may take apoplast, symplast or vacuolar pathway increasing the hydrostatic pressure in cells, this pushes the water upwards.

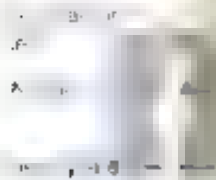
Q. Transport of food material in higher plants takes place through

- ☐ Companion cells
- ☐ Transfusion tissues
- ☐ Tracheids
- ☒ Sieve elements

Explanation

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SAEED MDCAT TEAM

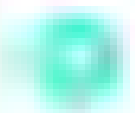


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Q Apoplast pathway can take water and minerals upto



Xylem



Endodermis



Cortex



Pericycle

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Explanations

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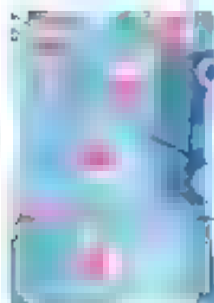
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Q The tendency of dissimilar particles or surfaces to cling to one another is called

- ☐ Tension
- ☐ Cohesion
- ☐ Clinging
- ☒ Adhesion

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Exploration

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adhesion

adhesion

adhesion

adhesion

adhesion

adhesion

adhesion

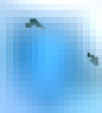
adhesion

adhesion

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Question



Answer

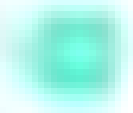
Q. It is found among water molecules by which water can move up the xylem like an unbroken column



Covalent bonds



ionic bonds



H-bonds



Es er bonds

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SAEED MDCAT TEAM

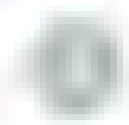


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The water molecules leaving the xylem are attached to other water molecules in the same xylem tube by hydrogen bonds called cohesion of water molecules



Q. It is the attraction among water molecules which holds them together within the xylem tube.



Tension



Adhesion



Cohesion



Imbibition

Explanation



The water molecules leaving the xylem are attached to other water molecules in the same xylem tube by hydrogen bonds called cohesion of water molecules

Q Food in plants is transported in the form of

- ☐ Monosaccharide
- ☐ Polysaccharide
- ☒ Disaccharide
- ☐ Oligosaccharide

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The glucose (monosaccharide) is formed in the photosynthesizing cells. Small quantity is used within the cells, while remaining is converted to sucrose (disaccharide). This sucrose is transported through the bundle sheath cells to the companion cells and store in the form of starch.

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QUIZZES

Practice Test-2 Life Processes in
Animals and Plants (Transport in Pl

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Q Most of the plasma proteins are synthesized in

- ☒ Liver
- ☐ Kidneys
- ☐ Bone marrow
- ☐ Thymus

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Q. It acts as ant coagulant

- ☐ Thrombin
- ☐ Prothrombin
- ☐ Histamine
- ☐ Heparin

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Q Plasma proteins that play main role in maintenance of colloid osmotic pressure are

- ☒ Prothrombin
- ☐ Albumin
- ☐ Globulins
- ☐ Fibrinogen

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Q In worm infection, these are most likely to be increased

- ☐ Neutrophils
- ☐ Eosinophils
- ☐ Basophils
- ☐ Lymphocyte

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Q In human circulation a part of heart that receives deoxygenated blood from body is

- ☐ Left ventricle
- ☐ Right ventricle
- ☐ Right atrium
- ☐ Left atrium

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Q. It provides protection to heart by preventing over extension

- ☐ Epicardium
- ☒ Pericardium
- ☐ Pericardial fluid
- ☐ Pleural fluid

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Q This one is not the property of heart muscles

- ☐ Automaticity
- ☐ Rhythmicity
- ☐ Branches
- ☐ Regular striations

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Q Pulmonary artery carries

- ☐ Oxygenated blood to lungs
- ☐ Deoxygenated blood to lungs
- ☐ Oxygenated blood from lungs
- ☐ Deoxygenated blood from lungs

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SAEED MDCAT TEAM



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Q How many pulmonary veins carry blood from lungs to heart?



1



2



3



4

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Q The difference between systolic and diastolic pressure become zero in

- ☐ Aorta
- ☐ Arteries
- ☐ Arterioles
- ☐ Capillaries

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Question



Answer

Q Most of the plasma proteins are synthesized in



Liver



Kidneys



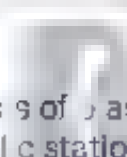
Bone marrow



Thymus

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Synthesis of plasma proteins is the main function of body's central metabolic station



Rec

reticulated



Scot

Q. It acts as ant coagulant



Thrombin



Prothrombin



Histamine



Heparin

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Thrombin and prothrombin are involved in the blood clotting process
Histamine is responsible for inflammatory response whereas heparin
acts as anticoagulant





Question

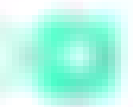


Answered

Q Plasma proteins that play main role in maintenance of colloid osmotic pressure are



Prothrombin



Albumin



Globulins



Fibrinogen

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The maintenance of colloid osmotic pressure of blood is mainly maintained by albumin





Question



Answer

Q In worm infection these are most likely to be increased



Neutrophils



Eosinophils



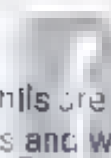
Basophils



Lymphocyte

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Eosinophils are white blood cells that are specific for the killing of parasites and worms as a result their number increases in such infections



Question



Answer

Q In human circulation a part of heart that receives deoxygenated blood from body is



Left ventricle



Right ventricle



Right atrium



Left atrium

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Right side of heart deals with deoxygenated blood whereas left side of heart deals with oxygenated blood



Heart



Pericardium



Epicardium



Pericardium



Pericardial fluid



Pleural fluid

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Prevention of heart from over extension is the function of double
membranous sac that surrounds heart



Correct

Q This one is not the property of heart muscles



Automaticity



Rhythmicity



Branches



Regular striations

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Cardiac muscles are cylindrical and irregularly striated. They are self-controlled by SA node but can also be regulated by autonomic nervous system.



Q Pulmonary artery carries

☐ Oxygenated blood to lungs

☒ Deoxygenated blood to lungs

☐ Oxygenated blood from lungs

☐ Deoxygenated blood from lungs

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 SAEEDMDCAT
Pulmonary artery arises from right ventricle and transfer blood towards lungs for oxygenation



Subject



Chapter / Topic

Q How many pulmonary veins carry blood from lungs to heart?



1



2



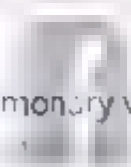
3



4

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Two pulmonary veins take oxygenated blood from lungs to heart



Correct



Incorrect

Q The difference between systolic and diastolic pressure become zero in



Aorta



Arteries



Arterioles



Capillaries

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Pressure is due to elasticity of the vessels and capillaries do not have elastic power, that's why difference becomes zero

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QUIZZES

Practice Test-3 Life Processes in
Animals and Plants (Transport in Pl

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Q. Lymph node is drained by

- ☐ Single afferent vesse
- ☐ Many afferent vessels
- ☐ Single efferent vesse
- ☐ Many efferent vessels

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Q Just as the lymph nodes filter lymph _____ filters blood



Liver



Kidneys



Lungs



Spleen

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Q Interstitial fluid contains all of the following except

- ☐ Proteins
- ☐ Water
- ☐ Red blood cells
- ☐ White blood cells

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Q Lymph nodes are not present in



Brain



Intestine



Neck



Thoracic region

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Q. This system is responsible for the transport and returning of materials from the body tissues to the blood

- ☒ Blood circulatory system
- ☐ Urinary system
- ☐ Lymphatic system
- ☐ Endocrine system

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Q Skin and mucous membranes are examples of

- ☒ Cellular barriers
- ☐ Physical barriers
- ☐ Chemical barriers
- ☐ Mechanical barriers

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Q Immune system in our body acts as

- ☒ 1st defense line
- ☐ 2nd defense line
- ☐ 3rd defense line
- ☐ 4th defense line

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Q. Its influence is essential in making T cells immunologically competent

- ☐ Bone marrow
- ☐ Lymph node
- ☐ Thymus
- ☐ Spleen

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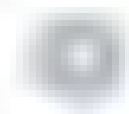
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Q

Cells that synthesize and liberate antibodies into the blood plasma



T lymphocytes



B lymphocytes



Plasma cell clone



Phagocytes

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Q Disulfide bonds in an antibody molecule attach constant portion of heavy chain with



Constant portions of heavy chain



Variable portions of heavy chain



variable portions of light chain



Variable portions of light & heavy chain

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Q Lymph node is drained by



Single afferent vesse



Many afferent vessels



Single efferent vesse



Many efferent vessels

Explanation

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Heart



Liver, Spleen

Q Just as the lymph nodes filter lymph, the spleen filters blood



Liver



Kidneys



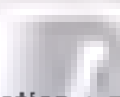
Lungs



Spleen

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The filtration is mainly by macrophages which take place in a lymphoid mass which exposes blood to the action of phagocytes



Question



Interstitia

Q Interstitial fluid contains all of the following except



Proteins



Water



Red blood cells



White blood cells

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Interstitial fluid is formed due to leakage of plasma as blood cells cannot cross capillaries

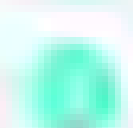


Correct



Incorrect

Q Lymph nodes are not present in



Brain



Intestine



Neck



Thoracic region

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CNS lacks a traditionally important system.



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Correct

Q This system is responsible for the transport and returning of materials from the body tissues to the blood



Blood circulatory system



Urinary system



Lymphatic system



Endocrine system

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Circulatory system transports materials to tissues whereas urinary system is involved in removal of nitrogenous wastes



Question



Correctly Solved

Q Skin and mucous membranes are examples of



Cellular barriers



Physical barriers



Chemical barriers



Mechanical barriers

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Skin and mucous membranes are the 1st line of defense in immunity



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Correct



Unattempted



Incorrect



7/10

Q : Immune system in our body acts as:



1st defense line



2nd defense line



3rd defense line



4th defense line

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Explanation
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Immune system comprises T and B lymphocytes.



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Correct



Unattempted



Incorrect



8/10

Q : Its influence is essential in making T-cells immunologically competent:



A Bone marrow



B Lymph node



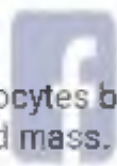
C Thymus



D Spleen

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Explanation
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T lymphocytes become competent in their maturation site which is a lymphoid mass.



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Correct



Unattempted



Incorrect



9/10

Q:

Cells that synthesize and liberate antibodies into the blood plasma:



T lymphocytes



B lymphocytes



Plasma cell clone



Phagocytes

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Explanation



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These cells are formed from B lymphocytes upon detection of antigen in blood.



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Q : Disulfide bonds in an antibody molecule attach constant portion of heavy chain with:

- A Constant portions of heavy chain
- B Variable portions of heavy chain
- C Variable portions of light chain
- D Variable portions of light & heavy chain

Explanation

